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EXAMINER	
THAKUR, VIREN A	
ART UNIT	PAPER NUMBER
1794	

NOTIFICATION DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

chicago.patents@klgates.com

Office Action Summary	Application No.	Applicant(s)	
	10/501,975	LABORBE ET AL.	
	Examiner	Art Unit	
	VIREN THAKUR	1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *27 October 2009*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *10-12,14,16 and 22-46* is/are pending in the application.

4a) Of the above claim(s) *25-37* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *10-12,14,16 and 38-46* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on October 27, 2009 has been entered.

Claim Objections

2. Claim 12 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claim 12 recites "wherein the source of pigments or colorants represents from about 5% to about 20% of the weight of the coating." This limitation broadens the range recited in independent claim 10 of 5-10% by weight and thus is indefinite.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 10-12,14,16,22-24,38-46 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Claims 10, 38 and 46 recite that the coating comprises a colorant selected from powdered blood, frozen blood and combinations thereof. In light of the specification, it is not clear as to how the blood would have remained powdered or frozen, especially since the specification indicates that the dry ingredients are mixed with water and subsequently a pasty material has been formed which would subsequently coat the food product (page 5, lines 16-21 of applicants' specification). A number of factors must be considered in assessing the enablement of an invention, including the following: the breadth of the claims, the amount of experimentation necessary, the guidance provided in the specification, working examples provided, predictability, and the state of the art. See In re Wands, 858 F.2d 731, 8 USPQ2nd 1400 (Fed. Circ. 1988). In this case, it is noted that the claims are directed to the finished product and not the method of making the product. As such, the specification does not provide sufficient disclosure or examples, enabling one having ordinary skill in the art to employ a coating composition having powdered blood in the finished composition when the composition would have

included moist ingredients, such as water which result in the formation of a paste like material which would have resulted in the dissolution of the powdered blood throughout the wet mixture.

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 10-12,14,16,22-24,38-46 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 10, 38 and 46 recite the limitation "having a roasted appearance." It is noted that the limitation "roasted appearance" is subjective and relative. That is, the limitation is not clear as to whether "roasted appearance" relates to only color or texture as well. Furthermore, the claim is not clear as to what is considered a roasted appearance. What one could consider roasted might not be considered roasted to another.

Claims 10, 38 and 46 further recite the limitation of a pigment from the group consisting of "a powdered blood, a frozen blood." These claims also recite the source of proteins selected from "a plasma, a gluten, a blood and combinations thereof." These limitations appear to indicate that both the pigment and the protein can be blood and thus these claims are not clear as to whether there can be one component employed for both the colorant and the protein.

Claim 12 recites "wherein the source of pigments or colorants represents from about 5% to about 20% of the weight of the coating." This limitation broadens the range recited in independent claim 10 of 5-10% by weight and thus is indefinite. Since claim 10 already limits the range from 5-10%, claim 12 fails to further limit claim 10.

Claims 11, 16, 22, 39, 42 and 43 further include water in the coating composition. In light of the inclusion of water, it is noted that the coating would have been expected to be a wet mixture and not a dry mixture. Thus, claims 10, 38 and 46 are not clear as to how the blood would be powdered or frozen in the composition, when the composition appears to be a wet mixture of ingredients.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.

4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

9. Claims 10-12,14,16,23,24, 38-42,44-46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Prasad (WO0065937) in view of Dupont-Delhovren (US 5567466) and in further view of Horrocks et al. (US 3898345), Ariss et al. (GB2315399), Palmer (US 3808340), Ito et al. (US 5059444) and Ziegler (US 3073700).

Regarding claims 10, 38 and 46, Prasad et al. teach a food composition such as fish and meat, which has a coating comprising a browning agent, which is considered a colorant and a protein such as egg white powder, soy or whey protein (Abstract and Page 3, lines 13-20 and Page 3, line 26 to Page 4, line 2), which when cooking the meat product results in a roasted brown appearance to the cooked meat product (page 6, lines 11-15) using chromogens (i.e. colorants such as caramel, annatto, turmeric (see page 6, lines 16 to end of page).

Claims 10 and 38 differ from Prasad et al. in the particular food product that has been coated with the coating composition for achieving a roasted appearance. Specifically, claim 10 recites that the animal food composition comprises an animal food piece comprising 55-85% by weight of at least one of meat and fish; 10-25% by weight of a cereal and 6-15% by weight of water. Claim 38 further limits the particular meat emulsion composition to 58-68% by weight of at least one of a meat and a fish; 10-25% by weight of a cereal; 2-5% plant protein and 5-14% water. Claim 46 further recites a meat emulsion product comprising a mixture of a meat, a cereal, a textured protein, water, vitamins, salt, a flavoring and a colorant.

Regarding this animal food composition, it is noted that Dupont-Delhovren teaches the claimed animal food piece (see at least, column 1, lines 28-37). It is noted that Dupont-Delhovren also teaches incorporating colorants (i.e. dyes) into both a sauce that would cover the chunks and into the chunks (column 2, lines 29-32 and lines 56-57). Dupont-Delhovren also teaches adding colors to both the coating sauce as well as the formed meat product. Regarding claim 38, Dupont-Delhovren further teaches the claimed ranges for the meat, cereal, plant protein and water (column 2, lines 42-46). Regarding claim 46, Dupont-Delhovren teaches the mixture of meat, cereal, textured protein, water, vitamins, salt a flavoring and a colorant (see column 2, lines 42-46; column 2, lines 56-57). Regarding the textured protein, Dupont-Delhovren teaches using vegetable extract protein or pig or beef plasma which are considered texturing proteins (column 2, lines 35-41 and 46-48). Thus, once the art recognized employing a coating composition for the purpose of achieving a roasted appearance, comprising a colorant and a protein, the particular conventional food product that one chose to coat for the purpose of achieving a roasted appearance would have been an obvious matter of choice and/or design.

Regarding the colorant or pigment employed, claim 10 recites that the coating comprises 5-10% by weight of at least one source of pigments or colorants selected from powdered blood, frozen blood and combinations thereof. Prasad et al. teaches that the coating composition can comprise colorants for achieving a roasted brown appearance using for instance, 5.49% of the browning agent (see page 18, table 4 and page 5, lines 17-20), which thus falls within applicants' claimed range of 5-10% by

weight of the coating composition. Thus, claim 10 differs in the particular colorant or pigment that has been employed.

Nevertheless, it is noted that blood has been a conventional coloring agent for food products. For instance, Horrocks et al. teaches in example 5, covering a protein product with a combination of 5% egg albumin and 10% blood and subsequently baking the coated food piece at 350°F (see column 8, line 63 to column 9, line 5 and column 8, line 25-26). Horrocks et al. also teaches that the blood can be fresh blood or dried blood (column 6, lines 27-33 and lines 37-39). Ariss et al. further evidences using 10% dried blood that can be used in combination with a protein to form a gel coated coloring on a food product (see page 2, line 23 and page 1, lines 15-18, 20 and page 1, lines 28-29). It is noted that, Palmer '340 further evidences that it has been conventional in the art to use blood (example VII on column 7). It is noted that the blood is part of the composition of the coating material, which Palmer '340 teaches, can include coloring materials (column 3, line 40). In view of the teachings of Horrocks et al. and Ariss et al., it would have been obvious to the ordinarily skilled artisan, that the blood included in the coating composition taught by Palmer '340 also would have provided color. Additionally, it is noted that the art has also recognized that blood pigments denatured lose their red color when exposed to a particular degree of heat to achieve a "roasted state." (see column 1, lines 15-25), as evidenced by Ito et al. Furthermore, it is noted that one of the components that Prasad et al. teaches to be used for creating the roasted appearance is annatto (see page 6), which would have been known to the ordinarily skilled artisan provides a red color. Since Prasad et al. already teaches a

variety of colorants that can be employed for the purpose of achieving a particular roasted appearance, and even teaches that the particular coloring agents are not limited, for achieving a brown roasted appearance (page 6, lines 17-20) by also using a particular conventional red colorant, and since the art also teaches employing another conventional colorant, dried blood for the purpose of achieving a desired color / simulated effect to the food, to thus modify the combination and employ another conventional coloring agent would have been an obvious result effective variable, routinely determinable by experimentation depending on the particular degree of color and roasted appearance desired. Regarding the use of powdered blood versus dried blood, it is noted that once the art taught employing dried blood, whether it would further have been a powder would have been an obvious matter of choice and/or design. In any case, Ziegler teaches using powdered blood with the advantage that it reduces the risk of putrefaction and spoiling of the colorant. Therefore it would have been obvious to use powdered blood as opposed to liquid blood to prevent spoiling of the blood. It is noted that applicant is not the first to use a mixture of colorants and further to use blood for providing a desired color, and the prior art teaches that these colorants have been well established to be used in mixtures for achieving a desired color and thus to use this combination would not have provided a patentable feature over the prior art.

Claim 10 further recites wherein the coating comprises a source of proteins selected from a plasma, a gluten, a blood and combinations thereof. Regarding this limitation, it is noted that Prasad et al. already teaches including protein into the coating composition, such as wheat gluten hydrolysate (page 7, line 29), which is thus a gluten

protein source. It is noted that Prasad et al. also teaches the use of other sources of protein, such as egg whites, whey protein and soy protein. Furthermore, it is noted that Horrocks et al. teaches employing a combination of a gelling protein and blood to coat a food product (column 8, line 63 to column 9, line 2) wherein the protein is albumin. On column 3, line 66 to column 4, line 3, Horrocks et al. further teaches that coagulable proteins include wheat gluten, blood plasma, albumin and starches. Prasad et al. is similar in also teaching employing egg albumin (in the form of egg whites) (see page 12), with the proteins gelatinized. Therefore, the particular conventional protein that one chose to employ for the purpose of providing a coated surface on the food product, would have been an obvious result effective variable, routinely determinable by experimentation.

Claims 11 and 39 specifically recite that the coating contains from 30-50% by weight of water.

It is noted that Prasad et al. teach on page 13, lines 15-17 that the liquid marinade that coats the food product can comprise water from between 5 to 80 percent by weight of the liquid marinade. To therefore employ an amount of water between 30 to 50 percent, for instance, would have been obvious to the ordinarily skilled artisan for its art recognized and applicants' intended function. For instance, to modify the amount of water would have been obvious depending on the desired consistency and fluidity desired for the composition.

Regarding claims 12 and 40, which recite that the pigments or colorants represent 5-20% by weight of the coating, the combination as applied to claim 10

already teaches employing pigments at 10%, which thus falls within the claimed range of claim 12.

Regarding instant claims 14 and 41, Prasad et al. disclose using proteins in the coating as part of the texturing agent. Prasad et al. disclose using preferably about 32 to 38 percent of the texture improving agent (Page 5, lines 25-28). The proteins included in this component are egg white, whey protein and soy protein. On page 10, Prasad et al. disclose the maximum preferable ranges for each of these as 18 percent, 12 percent and 15 percent, respectively. Therefore the total protein content in the coating is 45 percent. Since Prasad et al. use a maximum preferable amount of the texture improving agent of 38 percent, the total protein in the coating is 45 percent of 38, which is approximately 18 percent. An additional protein component, an enzyme modified dairy ingredient such as hydrolyzed wheat gluten, is also included in the browning agent (Page 7, line 29), present at most preferably between 60 and 70 percent of the browning agent composition. The browning agent is included in the coating at "most preferable" between 3 and 5 percent (Page 5, line 19). Therefore the maximum preferable amount of hydrolyzed wheat gluten in the browning agent is 5 * 70 percent, which is 3.5 percent. The total amount of protein included in the coating is thus 18 percent + 3.5 percent = 21.5 percent. This is considered to be about 20 percent.

Additionally, it is noted that Horrocks et al. teaches applying a coating to a food product using 5% egg albumin and 10% blood, thus teaching a protein and colorant within applicants' claimed range. Therefore, the particular amount of proteins employed

for achieving the desired degree of coagulation on the surface of the food would have been an obvious result effective variable, routinely determinable by experimentation.

Regarding claims 16 and 42, Prasad et al. disclose adding water to the coating (Page 4, lines 3-6).

Regarding claims 23 and 44, it is noted that the claims are directed to a product and not a method of cooking. Additionally, by reciting "after cooking" the claim does not positively recite cooking but merely indicates that at some point the combination of the food product and coating are cooked and when this happens a particular result is achieved. In any case, Prasad et al. disclose the claimed food composition and coating and further cook the food and coating (see claim 24 below). Applicant and Prasad et al. are using conventional cooking techniques. Therefore the coating and composition of Prasad et al. would intrinsically have achieved the same result as that of the claimed invention.

Regarding claims 24 and 45, it is noted that Prasad et al. teach coating a meat product with a coating composition and then cooking said food composition with coating in a microwave or convection oven (Page 4, lines 12-16 and Page 5, lines 3-7).

10. Claims 22 and 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over the references as applied to claims 10-12,14,16,23,24, 38-42,44-46, above in paragraph 9, and in further view of Hood (US 4089983), Corbett et al. (US 4508741), Francis (The Encyclopedia of Food Science and Technology),

University of Chicago, Dictionary of Food Science and Technology, Durst (US 3434843), Igoe (The Dictionary of Food Ingredients), Stoloff (US 2567085), Coppage et al. (US 3965259) and Palmer (US 3873736).

Claims 22 and 43 differ from the combination as applied above in paragraph 9, in specifically reciting employing a combination of conventional food additives/ingredients, well known and extensively employed in the art, including caramelized sugar, starch, a guar, a carboxymethyl-cellulose, a flour, water, a plasma, a powdered blood, sodium alginate, a salt, a sugar, an ascorbic acid, a gluten and an iron oxide.

Regarding these components, it is noted that Prasad et al. teach wherein the coating comprises a caramel color (page 6, line 23) and further also recognized the browning of sugar as a result of the cooking process (page 8, line 27 to page 9, line 2) (i.e. caramelized sugar). Corbett et al. teach that it has been well known in the art to use caramel colorants for coating pet food products (Column 4, lines 61-66). Francis is cited as further evidence that it has been well known that caramel colorants are derived by caramelizing sugar. Even further evidenced by Coppage on column 8, line 37, caramel (i.e. caramelized sugar) has been a conventionally employed colorant and further teach using iron oxide and caramelized sugar for the purpose of giving a food product a cooked appearance (column 7, lines 36-52). Prasad et al. further teach wherein the coating comprises starch (page 3, line 26 to page 4, line 2), water (page 13, lines 15-17), salt and other flavorings (page 6, lines 4-9) and gluten (page 7, lines 29-30). Regarding the gluten, it is noted that enzyme modified wheat gluten hydrolysate is still gluten. This is further evidenced by the fact that hydrolyzed wheat gluten is still

listed as one of the components that should not be included in gluten-free diets. University of Chicago provides further evidence that wheat gluten hydrolysate contains gluten (See page 2 of 7 of section titled "Ingredients to Avoid (Contain Gluten)).

Claims 22 and 43 further differ in the other particular conventional ingredients used in the composition, such as flour.

Palmer '340 teaches that it was conventional to employ flour, such as bone flour (Column 7, line 43) and wholemeal wheat flour (Column 7, line 41) into the coating that coats the meat. As evidenced by Dictionary of Food Science and Technology, wholemeal flour is a starch and also comprises gluten. Wholemeal wheat flour contains all the components of the wheat grain. The Dictionary of Food Science and Technology teaches that wheat grain comprises gluten. Palmer '340 further teaches wherein the coating comprises salt (Column 7, line 44). Palmer '340 is further analogous in that Palmer '340 also teaches that it has been conventional to employ colorants (Column 3, line 40) and sugar (Column 3, line 17). In addition, on column 8, lines 25-47, Coppage et al. also teach that it was conventional to employ what flour and barley, which both contain gluten, as evidenced by University of Chicago on page 2 of 7. Coppage et al. also teaches employing salt and vitamins and colorants. The art taken as a whole thus teaches that these food additives/ingredients have been conventionally employed for their art recognized purpose in compositions that coat meat products. To therefore modify the combination and employ conventional food additives/ingredients, such as wholemeal wheat flour, which thus also comprises the gluten, and to use the other conventional ingredients taught by Palmer '340 and Coppage et al. for coating a food

product for giving the food product a pleasing flavor, aroma and appearance, would have been obvious for its art recognized and applicants' intended function.

Regarding using powdered blood, it is noted that the combination, as applied to claims 10, 38 and 46 already teaches using powdered blood.

Claims 22 and 43 further differ from the combined applied to claims 10, 38 and 46, in using a guar, a carboxymethyl cellulose and sodium alginate in the coating composition, in combination.

It is noted that Palmer '340 teaches using gums such as gum Arabic and also teach using carboxymethylcellulose in the coating compositions (See Example VIII on column 8 and Example X on column 9). These gums have been well known binders, and Prasad et al. teach that binders can be added into the coating composition (page 12, lines 18-19). To therefore employ conventional binders, such as guar and carboxymethylcellulose would therefore have been obvious for art recognized in applicants' intended function. Furthermore, Durst teaches using a combination of film formers for an external coating on a food product which can use a combination of film forming substances including carboxymethylcellulose, guar gum and sodium alginate (Column 2, lines 36-48). As a result of using a combination of edible film formers in the coating on the food product, rancidification is minimized and the desired qualities of the food product, such as chewiness and flexibility through storage are preserved (Column 2, lines 22-35). Durst further teaches using humectants and water in combination with the film forming substances for the purpose of encapsulating the food product (Column 2, lines 49-50). To thus modify the combination and employ guar, carboxymethyl

cellulose and sodium alginate would have been an obvious result effective variable, routinely determinable by experimentation for its art recognized function.

Similar to Durst, Palmer '340 teaches using a humectant (Column 3, line 43) and a film former such as gums and carboxymethylcellulose in combination with water in a coating for a food product, which coagulates and thus results in an even film over the food product (Column 4, lines 38-53). Humectants, antioxidants and stabilizers have been well established in the art as components used to protect the quality of the food. For instance, humectants drive moisture away from the food product and antioxidants and stabilizers prevent spoiling and loss of organoleptic properties of the food product. Therefore to one having ordinary skill in the art, to use a combination of edible film forming substances would have been obvious based on Durst's teaching of using a combination of edible film forming substances to protect a food product. To use a combination of edible film forming substances, in view of the art taken as a whole would have been obvious to the ordinarily skilled artisan for the purpose of protecting the food from rancidification and preserved the organoleptic properties over long term storage, while also aiding in providing a particular consistency to the coating..

Further regarding claims 22 and 43, which recite the use of ascorbic acid, it is noted that Palmer '340 teach adding vitamins and antioxidants to the coating (Column 3, lines 40-42). Palmer is silent in specifically using ascorbic acid.

Igoe teaches that ascorbic acid provides nutrients and is essential for healthy bones and teeth. Igoe further teaches that ascorbic acid has also been well known to be used as an antioxidant to increase the shelf life of processed foods (Page 14).

Palmer teaches producing a processed food and further teaches using an antioxidant as well as a vitamin solution within the coating. Therefore to use ascorbic acid would have been obvious to the ordinarily skilled artisan, in light of the teachings of Palmer '340 and the Dictionary of Food Ingredients, as an antioxidant and as a nutritive vitamin. Stoloff is cited as further evidence of the conventionality of coating a food product with ascorbic acid for the purpose of preservation (Column 2, Lines 9-16).

Claims 22 and 43 further differ from the combination applied above in reciting using plasma together with gluten. Palmer '736 teaches that gluten, plasma soy protein and egg albumen are well known binders that are also heat coagulable (Column 4, lines 55-59). Furthermore, Example 2 teaches combining gluten and plasma to form the coagulable protein. Therefore the art recognized that both gluten and plasma are proteins which also act as binders, thus serving similar functions. Based on this recognition in the prior art, to combine the two protein binders used for the same purpose would not have provided a patentable feature over the prior art (See MPEP 2144.06 I).

Regarding the number of references, it is noted that applicants have used the claimed ingredients for their art recognized function and the references relied on further evidence that it has been conventional to use the claimed components for their art recognized function in coating compositions as well. To thus employ these components for their art recognized function would have been an obvious result effective variable routinely determinable by experimentation. For instance, it would have been routinely determinable by experimentation to achieve a desired thickness to the coating using

guar, carboxymethylcellulose, starch and water, a desired coagulability using plasma and gluten and a particular flavor using salt and sugar and a desired preservative action using ascorbic acid.

In summary, applicant has combined a series of conventional food additives/ingredients, employed them for their well known, art recognized function, and achieved no new or unexpected result therefrom.

11. Claims 10, 12,14,16, 23,24,38, 40-42,44,45 and 46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Horrocks et al. (US 3898345) in view of Ito et al. (US 5059444), Dupont-Delhovren (US 5567466), and Ziegler (US 3073700).

Regarding claims 10, 38 and 46, it is noted that Horrocks et al. teaches coating, by spraying, an emulsion with a solution containing 5% egg albumin and 10% blood and subsequently heating the coated products at 380°F. It is noted that by thus cooking a product coated with a composition of blood and a protein, that this heating would also have resulted in a roasted appearance, since applicants' product comprises blood and a protein with the result, after heating is a roasted appearance. It is noted that Horrocks et al. also teaches the blood employed within applicants' claimed range of 5-10%. Additionally, it is noted that the art has also recognized that blood pigments denatured lose their red color when exposed to a particular degree of heat to achieve a "roasted state." (see column 1, lines 15-25), as evidenced by Ito et al.

Claims 10, 38 and 46 differs from Horrocks et al. in the particular food product that has been sprayed with the protein/blood coating solution. Nevertheless, Dupont-

Delhovren has been relied on as discussed above in paragraph 9, to teach that the claimed compositions have been conventional animal food compositions. It is noted that the emulsion product taught by Horrocks et al. also includes meat products, such as liver, and water, protein and another based material such as plant fibers. Thus to modify Horrocks et al. and substitute one conventional composition that can be consumed by animals, for another conventional composition that can be consumed by animals would have been an obvious matter of choice and/or design, depending on the particular food product one chose to coat.

Claims 10, 38 and 46 further differ in specifically reciting that the colorant is powdered blood and the protein is from the group consisting of plasma, gluten, a blood and combinations thereof.

It is noted however, that Horrocks et al. teaches that blood plasma, egg albumin and wheat gluten are all suitable heat coagulable substances. Therefore, to modify Horrocks et al. and employ gluten or blood plasma would have been an obvious substitution of one conventional protein that is heat coagulable for another conventional protein that is heat coagulable. Regarding the coating comprising at least one colorant selected from the group of powdered blood, frozen blood and a combination thereof, it is noted that Horrocks et al. already recognized that blood provides a desired color to the food product and even teaches employing dried blood. Horrocks et al. teaches employing dried blood with water (column 6, lines 37-39). In any case, Ziegler has been relied on, as discussed above in paragraph 9, to teach using powdered blood with the advantage that it reduces the risk of putrefaction and spoiling of the colorant. Therefore

it would have been obvious to use powdered blood as opposed to liquid blood to prevent spoiling of the blood. It is noted that applicant is not the first to use a mixture of colorants and further to use blood for providing a desired color, and the prior art teaches that these colorants have been well established to be used in mixtures for achieving a desired color and thus to use this combination would not have provided a patentable feature over the prior art.

Regarding claims 12 and 40, Horrocks teaches that the pigment is present at 10% (column 8, line 67), which thus falls within the claimed range. Regarding claims 14 and 41, Horrocks teaches the protein present at 5% (column 8, line 67), which thus falls within the claimed range.

Regarding claims 23-24 and 44-45, which recite that after cooking a non-homogenous random roasted appearance is created on the food (claims 22, 44) and wherein the composition is cooked by hot air, steam, a combined hot air and steam system and a microwave oven (claims 23, 45), it is noted that the claims are directed to the product prior to cooking. By reciting that the roasted appearance occurs "after cooking" it is noted that the claims are directed to the product prior to cooking. In any case, it is noted that since Horrocks et al. teaches cooking a coated product using a gas oven (i.e. hot air system) at 380°F, that the product taught by Horrocks et al. would also have achieved the claimed roasted appearance, especially since claims 10, 38 and 46 only require the use of a protein and a blood colorant for achieving the roasted appearance after cooking.

Regarding claims 16 and 42, which recite that the coating composition further comprises a component selected from the group consisting of a thickener, a binder, an additive, flour, water and combinations thereof, it is noted that Horrocks et al. teaches that the coating composition comprises water (column 8, lines 65-69), since Horrocks et al. teaches that the coating composition is a solution.

12. Claims 11 and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over the references as applied to claims 10, 12,14,16, 23,24,38, 40-42,44,45 and 46, above in paragraph 11, and in further view of Prasad et al. (WO 0065937).

Claims 11 and 39 recite that the coating comprises 30-50% by weight of water. Regarding this limitation, it is noted that Horrocks et al. essentially teaches in example 5, a solution comprising 85% water, 5% protein and 10% blood. Claims 11 and 39 thus differ from Horrocks et al. in the particular percentage of water employed.

It is noted that Horrocks et al. teaches the addition of barrier materials such as starch, gum or gelatin when coating the food product (column 4, lines 28-33) and wherein the coating can further comprise, starch, flour, gums, gelatin, collagen or gelatin solution (column 4, lines 34-38) and wherein the particular ingredients can be selected to achieve the desired characteristics for the simulated meat product (column 4, lines 40-42). It is noted however, that Prasad et al. on page 13, lines 15-17 discloses that the liquid marinade that coats the food product can comprise water from between 5 to 80 percent by weight of the liquid marinade. Prasad et al. further teaches that the coating composition can comprise other flavoring ingredients and binding ingredients for

the purpose of employing a coating which would give a roasted appearance but would further retain the moisture of the food product, adds flavor and improves the texture of the food. By the addition of other components, as taught by Prasad et al., for achieving improved texture and moisture retention, for instance, the amount of water in the coating composition would obviously have varied. To therefore employ an amount of water between 30 to 50 percent, for instance, would have been an obvious result effective variable routinely determinable by experimentation, in view of Prasad et al., who teach the addition of other components to the coating composition, for the purpose of imparting added benefits to the coating, such as improved texture, moisture retention and flavor. Furthermore, in view of these advantages of including other ingredients to the coating, it would have been obvious to the ordinarily skilled artisan to modify the amount of water would have been obvious depending on the desired consistency and fluidity desired for the composition.

13. Claims 22 and 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over the references as applied to claims 10, 12,14,16,23,24,38, 40-42,44,45, and 46, above in paragraph 11, and in further view of Prasad et al. (WO0065937), Hood (US 4089983), Corbett et al. (US 4508741), Francis (The Encyclopedia of Food Science and Technology), Dictionary of Food Science and Technology, Durst (US 3434843), Igoe (The Dictionary of Food Ingredients), Stoloff (US 2567085), Coppage et al. (US 3965259) and Palmer (US 3873736).

Regarding claims 22 and 43, Horrocks et al. teaches a coating composition that comprises protein, such as albumin and blood as a colorant. Horrocks et al. further teaches that the coating can further comprise components such as flour, starch, gums (column 4, lines 35-37). Horrocks et al. further teaches that additional coagulant materials can be added such as sodium alginate or sodium carboxymethyl cellulose.

Claims 22 and 43 differ from Horrocks et al. in reciting that the coating composition comprises a mixture of caramelized sugar, a guar, a carboxymethyl cellulose, a flour, sodium alginate, a salt, a sugar, an ascorbic acid, a gluten and an iron oxide.

Regarding caramelized sugar, it is noted that Prasad et al. teach wherein the coating comprises a caramel color (page 6, line 23). Corbett et al. teach that it has been well known in the art to use caramel colorants for coating pet food products (Column 4, lines 61-66). Francis is cited as further evidence that it has been well known that caramel colorants are derived by caramelizing sugar. Prasad et al. further teach wherein the coating comprises starch (page 3, line 26 to page 4, line 2), water (page 13, lines 15-17), salt and other flavorings (page 6, lines 4-9). To thus modify Horrocks et al. and employ ingredients which the art has recognized have been conventionally employed for making coating compositions that coat meat products which will subsequently provide a roasted appearance when cooking, would thus have been an obvious result effective variable, routinely determinable by experimentation, for their art recognized function.

Claims 22 and 43 further recite using a guar, a carboxymethyl cellulose and sodium alginate in the coating composition. Regarding the carboxymethyl cellulose, sodium alginate and guar, it is noted that Horrocks et al. teaches that these have been conventional coagulant materials that can be added to a coating composition (column 4, lines 13-17) as well as gums (column 4, lines 34-35). Horrocks et al. is not clear as to whether these components are used together..

It is noted that Palmer '340 teaches using gums such as gum Arabic and also teach using carboxymethylcellulose in the coating compositions (See Example VIII on column 8 and Example X on column 9). These gums have been well known binders, and Prasad et al. teach that binders can be added into the coating composition (page 12, lines 18-19). To therefore modify the combination and employ conventional binders, such as guar and carboxymethylcellulose would therefore have been obvious for its art recognized and applicants' intended function. Furthermore, Durst teaches using a combination of film formers for an external coating on a food product which can use a combination of film forming substances including carboxymethylcellulose, guar gum and sodium alginate (Column 2, lines 36-48). As a result of using a combination of edible film formers in the coating on the food product, rancidification is minimized and the desired qualities of the food product, such as chewiness and flexibility through storage are preserved (Column 2, lines 22-35). Durst further teaches using humectants and water in combination with the film forming substances for the purpose of encapsulating the food product (Column 2, lines 49-50). To thus modify the combination and employ guar, carboxymethyl cellulose and sodium alginate would have been an obvious result

effective variable, routinely determinable by experimentation for its art recognized function.

Claims 22 and 43 further differ from the combination applied above, in reciting the use of plasma in combination with gluten. It is noted that Horrocks et al. already teaches that plasma and gluten are suitable heat coagulable proteins (column 3, line 66 to column 4, line 3) but is not clear as to whether they are used together. Nevertheless, Palmer '736 teaches that gluten, plasma soy protein and egg albumen are well known binders that are also heat coagulable (Column 4, lines 55-59). Furthermore, Example 2 teaches combining gluten and plasma to form the coagulable protein. Therefore the art recognized that both gluten and plasma are proteins which also act as binders, thus serving similar functions. Based on this recognition in the prior art, to combine the two protein binders used for the same purpose would not have provided a patentable feature over the prior art (See MPEP 2144.06 I).

Further regarding claims 22 and 43, which recite the use of ascorbic acid, it is noted that Palmer '340 teach adding vitamins and antioxidants to the coating (Column 3, lines 40-42). Palmer is silent in specifically using ascorbic acid.

Igoe teaches that ascorbic acid provides nutrients and is essential for healthy bones and teeth. Igoe further teaches that ascorbic acid has also been well known to be used as an antioxidant to increase the shelf life of processed foods (Page 14). Palmer teaches producing a processed food and further teaches using an antioxidant as well as a vitamin solution within the coating. Therefore to use ascorbic acid would have been obvious to the ordinarily skilled artisan, in light of the teachings of Palmer '340 and

the Dictionary of Food Ingredients, as an antioxidant and as a nutritive vitamin. Stoloff is cited as further evidence of the conventionality of coating a food product with ascorbic acid for the purpose of preservation (Column 2, Lines 9-16).

Claim 22 further differs in reciting the use of iron oxide. Nevertheless, Coppage on column 8, line 37 teaches that it has been conventional in the art to employ iron oxides as colorants for the purpose of giving a food product a cooked appearance (column 7, lines 36-52). Since Horrocks et al. already teaches achieving a product that provides a desired appearance (such as simulating another product), to thus modify the combination and further employ another conventional colorant would have been an obvious result effective variable, routinely determinable by experimentation, for the purpose of achieving the desired appearance of the food product.

Response to Arguments

14. On page 9 of the response, applicant urge an unexpected result by using between 5-10% powdered blood, frozen blood and combinations thereof in combination with a protein, which when cooked at sufficiently high temperatures results in fixing of the pigment due to the coagulation of the proteins. It is noted that this would also have been inherent to the product taught by the combination, since Prasad et al. also teaches that the coating composition comprises proteins and colorants and which, when heating results in the gelatinization of the protein to thus form a coating of a particular thickness over the food, while also providing a particular degree of color to the food.

15. Further on page 9, applicants urge that the combination fails to teach the particular animal food piece, as recited in claim 10. This argument is moot in view of the new grounds of rejection, above.

16. Further on page 9, applicants urge that Prasad fails to disclose the specific ranges and components of the claimed animal food piece. However, this argument is moot in view of the new grounds of rejection above.

17. Further on page 9, applicants urge that Ziegler is directed to a blood pigment preparation for meat products and fails to disclose an animal food piece including a coating having a roasted appearance after cooking, as recited in claim 10. This argument is moot in view of the new grounds of rejection above. It is noted however, that Ziegler is still relied on to teach that the art has recognized using powdered blood as a colorant for meat products. Nevertheless Horrocks et al. and Ariss et al. teach the use of dried blood as a colorant for coating a food product.

Further on page 9, applicants urge that Palmer fails to disclose animal food pieces including a coating having a roasted appearance after cooking. It is noted however, that the term "roasted appearance" is a subjective term, as discussed above under 35 U.S.C. 112, second paragraph. Additionally, it is noted that the claim only recites a particular product having a particular percentage of components with the end result after cooking, being a product with a roasted appearance. Prasad et al. has already been

relied on to teach this concept. Palmer '340 has only been relied on as further evidence of blood used in coating compositions for animal food compositions as well as to teach that applicants' other added ingredients have also been conventionally employed in coating compositions.

18. On page 10 of the response, applicants urge that none of the cited references discloses using powdered blood or frozen blood as a colorant at the claimed range that provides a roasted appearance coating on an animal food piece. This argument is not persuasive and is moot in view of the new grounds of rejection above. It is noted that the claims do not limit the composition to only powdered blood, frozen blood and combinations, but rather, states that "at least one source of pigments or colorants" is selected from powdered blood, frozen blood and combinations thereof. The art has already recognized employing colorants for achieving a desired roasted appearance. Horrocks et al. and Ariss et al. further evidence using dried blood as a colorant that coats food products. Horrocks et al. even teaches heating the coated composition comprising protein and blood and wherein the protein and blood are within applicants' claimed range. Since Horrocks et al. teaches using protein and blood as a coating and further teaches heating the composition, it is noted that Horrocks would also have resulted in a roasted appearance after heating. Thus, in view of the art taken as a whole, it would have been obvious to have employed powdered blood for its art recognized function of providing a desired degree of color to a food product when cooking.

19. Further on page 10, applicants urge that Palmer fails to teach that the beef blood has been used as a colorant but rather only teaches adding beef blood to a coating composition. It is noted however, in view of the art taken as a whole, that blood has been a conventional colorant and thus by adding beef blood, it would have been obvious that the blood would have imparted some color to the coating. In any case, it is noted that Horrocks et al., Ariss et al. and Ito et al. have been relied on for teaching coating meat products with blood for the purpose of achieving a desired color. Regarding Ziegler teaches incorporating whole blood into the meat rather than coating the meat. It is noted however that Ziegler has only been relied on as evidence that powdered blood has been a conventionally employed colorant for providing a desired appearance to a meat based product.

Conclusion

20. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US 4942043 discloses coating a food product with blood as a coloring agent (column 3, line 64-column 4, line 5). US 3427168 discloses using blood as a color component which is included in sausage casing. US 2938800 discloses using blood to give color to food products. US 1956784 discloses coating meat chunks with a blood coloring agent prior to grinding the meat page 2, lines 77-85)

Any inquiry concerning this communication or earlier communications from the examiner should be directed to VIREN THAKUR whose telephone number is (571)272-6694. The examiner can normally be reached on Monday through Friday from 8:00 am - 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rena Dye can be reached on (571)-272-3186. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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/Steve Weinstein/
Primary Examiner, Art Unit 1794

/V. T./
Examiner, Art Unit 1794